

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANT: KIM, Min-won

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EXAMINER: Mellon, D. C.

TITLE: FLUID FLOW INTERRUPTION MEANS FOR FILTER OF WATER PURIFIER

Amendment D: CLAIM AMENDMENTS

Claims 1 -4 (canceled by earlier amendments).

Claims 5 and 6 (canceled herein).

7. (new) A filter apparatus for water purifier comprising:

a head having a guide passage and an inlet port and an outlet port, said guide passage suitable for guiding fluid through said inlet port, said outlet port suitable for discharging purified fluid from said head, said guide passage having a longitudinal axis, said guide passage having a wall with an inner diameter that narrows in diameter toward and adjacent one end thereof;

a filter body threadedly locked to said head, said filter body having an inlet hole formed in an upper surface thereof, said inlet hole having a longitudinal axis offset from said longitudinal axis of said guide passage, said one end of said guide passage facing said upper surface of said filter body in a position away from said inlet hole, said upper surface of said filter body and a lower surface of said head defining a channel extending from said one end of said guide passage to said inlet hole, said filter body having at least one through hole formed therein so as to allow fluid to flow from said filter body to said outlet port of said head; and

a fluid flow interrupter disposed in said guide passage between said inlet port and said upper surface of said filter body, said fluid flow interrupter having a fluid guide rod formed at one end thereof, said fluid flow interrupter having an opening and closing body connected to said fluid

guide rod, said opening and closing body having a diameter that decreases away from said fluid guide rod, said opening and closing body having an O-ring fitted therearound, said fluid flow interrupter having an opening and closing projection extending from an end of said opening and closing body opposite said fluid guide rod, said opening and closing projection having an and extending outwardly of said one end of said guide passage, said fluid flow interrupter having an elastic spring positioned within said guide passage so as to bear against said opening and closing body so as to urge said opening and closing projection outwardly of said one end of said guide passage, said fluid guide rod extending through one end of said elastic spring, said fluid flow interrupter having a hollow cylindrical protuberance positioned adjacent another end of said guide passage, said elastic spring having another end fitted around said hollow cylindrical protuberance, said hollow cylindrical protuberance having an inner diameter greater than an outer diameter of said fluid guide rod, said opening and closing body being spaced from said one end of said guide passage when said upper surface of said filter body bears against said end of said opening and closing projection so as to allow fluid to flow thereby and outwardly of said one end of said guide passage and into said channel, said elastic spring urging said opening said closing body toward said one end of said guide passage so as to be in sealing relation with said wall of said guide passage when said filter body is uncoupled from said head and so as to block fluid from flowing outwardly of said one end of said guide passage.

8. (new) The filter apparatus of Claim 7, further comprising:

a bracket having one end coupled to an outer surface of said head and an opposite end suitable for fastening to a wall.